

CLAIMS

1. A method for a subharmonic mixer design comprising of an RF input connected to the source terminals of the first set of four switches, whose drains are connected to the source terminals of the second set of four switches, whose drains are the mixer output. The local oscillator signals connections are such that the gates of the first set of switches and the second set of switches are connected to differential local oscillator sources that are 90 degrees phase shifted.
2. The method of claim 1 wherein there are three or more sets of switches connected in series.
3. The method of claim 1 wherein the switches are based on FET transistors.
4. The method of claim 1 wherein the switches are based on GaAs transistors.
5. The method of claim 1 wherein the switches are based on MOS transistors.
6. The method of claim 1 wherein the first set of switch gates are connected to the in-phase local oscillator signals and the second set of switch gates are connected to the quadrature local oscillator signals.

7. The method of claim 1 wherein the first set of switch gates are connected to the quadrature-phase local oscillator signals and the second set of switch gates are connected to the in-phase local oscillator signals.